

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000127**Date Inspected:** 13-Apr-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Benicia, CA.**CWI Name:** Mike Johnson**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** PQR test plate welding**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Robert Mertz was present at the Ironworkers Apprenticeship Training Facility as requested by American Bridge/ Fluor for the continuing purpose of witnessing Procedure Qualification Record (PQR) tests. The following items were observed:

1. The Caltrans QA inspector observed the welder, Dan Gordon practicing welding and the Smith Emery Certified Welding Inspector (CWI) QC inspector setting up the welding parameters on a separate steel plate to simulate the weld joint prior to starting the PQR test plate. This plate was welded with three passes then saw cut to provide cross section view of the weld, similar to a macroetch. Observations of these samples after grinding and slight polishing, however without acid etching appeared to reflect complete penetration and fusion to the base metal and steel backing.

2. The observation is the second attempt of a PQR test identified as ABF-PQR-002-1. This PQR test is being welded in the flat (1G) position, and is a single-vee groove with 25mm (1) thick A709, Grade 345W steel plate and a 10mm (3/8) thick steel backing bar per Figure 5.1 and is being welded per AWS D1.5, 2002, section 5.13. The welder was using Lincoln NR-232 self-shielded flux cored arc welding (FCAW-S) wire electrode.

3. The Caltrans QA inspector visually observed that one root pass was welded and then substantially removed due to the travel speed not at the time selected by QC to obtain the desired heat input. The root area was re-welded using a slower travel speed and then three fill passes were added to the PQR test plate assembly on this date.

4. ABF welding QCM, Mr. Jim Bowers was present for a brief period on this date in the morning to review the

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

status with the QC inspector.

For additional information and specific welding parameters recorded during this procedure qualification record test see the Caltrans TL-6032 generated for this date. Digital pictures of observations are available upon request.

Summary of Conversations:

The QC inspector stated PQR welding would resume on Monday 04-16-2007.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Mertz,Robert	Quality Assurance Inspector
Reviewed By:	Smith,Ryan	QA Reviewer
